

ABSTRACT

The call processing state machines defined by the CDMA standards (e.g., IS-95 and IS-2000) are modified to include a “traffic channel” substate indicative of the mobile station processing at least one active call. Call control (CC) state machines of various types are also provided to control the processing of the calls. To process one or more calls concurrently, a CC state machine is instantiated upon receiving an indication to process a particular call. The instantiated CC state machine is identified with, and used to control the processing of, the particular call. Upon receiving an indication to process an additional call, another CC state machine can be instantiated for the additional call. Each call to be processed can also be associated with a particular a service option connection, which includes information indicative of a set of parameters (e.g., the physical channels) to be used for data transmission.